

## CLAIMS

We claim:

- 1 1. A method for a standby router protocol (SRP) comprising:  
2 assigning a VLAN participating in an SRP to a membership in a VLAN domain,  
3 the VLAN domain having a master VLAN;  
4 establishing a default route for the membership of the VLAN domain as  
5 determined by a virtual router with which the master VLAN is associated; and  
6 routing traffic for the VLAN in accordance with the domain master VLAN's  
7 default route.
- 1 2. The method of claim 1, wherein establishing the default route is further  
2 determined by a current master of the virtual router.
- 1 3. The method of claim 1, further comprising re-establishing the default route for  
2 the membership of the VLAN domain as determined by a new master of the virtual  
3 router elected in accordance with the SRP.
- 1 4. The method of claim 1, further comprising sending an SRP message from the  
2 master VLAN to the virtual router on behalf of the membership of the VLAN domain.
- 1 5. The method of claim 1, wherein the SRP message is an Internet Protocol  
2 packet datagram unit (PDU).

1 6. The method of claim 5, wherein the PDU contains parameter data about a  
2 status of an end-host in a member VLAN.

1 7. The method of claim 5, wherein the PDU contains parameter data about a  
2 status of a member VLAN in the VLAN domain.

1 8. The method of claim 5, wherein the PDU contains parameter data about a  
2 status of the VLAN domain.

1 9. The method of claim 1, wherein the member VLAN is a layer-2 subnet.

1 10. The method of claim 1, wherein the domain master VLAN is a layer-2 subnet.

1 11. A method for a standby router protocol (SRP) comprising:  
2 assigning an end-host to a host-specific port of a first router supporting a  
3 virtual router in an SRP;  
4 establishing an initial default route for the end-host determined by a current  
5 master router for the virtual router, the current master router elected in accordance  
6 with the SRP;  
7 routing traffic for the end-host in accordance with the initial default route; and  
8 routing traffic for the end-host in accordance with a subsequent default route,  
9 the subsequent default route determined by a new master router for the virtual router,  
10 the new master router elected in accordance with the SRP.

1 12. The method of claim 11 wherein the first router is the current master router.

Yip et al. – Method and System for Increasing Participation  
in a Standby Router Protocol

EL034436965US

DJC/mwb

- |   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |